

## ABSTRACT OF THE DISCLOSURE

A method, apparatus and system for building a filter is disclosed. In a particular embodiment, the filter is a finite impulse response (FIR) filter and a compiler suitable for implementing the FIR filter is described. The compiler has an  
5 includes a filter coefficient generator suitably arranged to provide a first set of filter coefficients corresponding to the desired FIR filter spectral response and a filter spectral response analyzer coupled to the filter coefficient generator for providing an expected FIR filter spectral response based in part upon the first set of filter coefficients. The compiler also includes a filter resource estimator coupled to  
10 the filter spectral response simulator for estimating an implementation cost of the FIR filter based upon the second set of filter coefficients as well as a filter compiler unit coupled to the resource estimator arranged to compile a FIR filter implementation output file.